

24. (New) A method of using a composition, the method comprising
preparing a cream from the solid composition of Claim 1; and
applying the cream to skin.--

Remarks

SUPPORT FOR THE AMENDMENT

This Amendment cancels Claim 2; amends Claim 1; and adds new Claims 22-24. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claim 1 is found in the specification at least at page 2, lines 20-23, and in canceled Claim 2. Support for Claim 21 is found in the specification at least at page 10, line 26. Support for new Claim 22 is found in the specification at least at page 3, line 1-2. Support for new Claim 23 is found at least in original Claim 1. Support for new Claim 24 is found in the specification at least at page 8, lines 25-31. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1 and 3-24 will be pending in this application. Claim 1 is independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the courtesies extended to their representative during the August 8, 2001, personal interview.

Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-21 of copending Application No. 09/611,663. Applicants respectfully traverse this rejection because Claims

1-21 of U.S. Application No. 09/611,663 fail to suggest the independent Claim 1 limitations of a "solid composition" that "exhibits a compressive strength of greater than or equal to 50 grams, at room temperature, after penetration by a cylindrical probe having a diameter of 0.8 cm into the composition over a thickness of 5 mm at a rate of 1 mm/s". Because Claims 1-21 of U.S. Application No. 09/611,663 fail to suggest all the limitations of the claimed invention, the obviousness-type double patenting rejection should be withdrawn. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claim 1 is rejected under 35 U.S.C. §112, second paragraph as assertedly being indefinite because Applicant does not clearly define "solid composition" in the claims. To obviate this rejection, Claim 1 is amended to include the definition of "solid composition" disclosed in the specification at page 2, lines 20-23; namely that "the solid composition exhibits a compressive strength of greater than or equal to 50 grams, at room temperature, after penetration by a cylindrical probe having a diameter of 0.8 cm into the composition over a thickness of 5 mm at a rate of 1 mm/s". Applicants submit that the claims meet the requirements of 35 U.S.C. §112, second paragraph. Therefore, the rejection of Claim 1 under 35 U.S.C. §112, second paragraph, should be withdrawn. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 1-21 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 5,250,289 ("Boothroyd") in view of U.S. Patent No. 5,412,004 ("Tachibana") and U.S. Patent No. 5,811,487 ("Schulz"). The Office Action notes that Schulz is not relied upon. Office Action at page 4, lines 9-10. Applicants respectfully traverse this rejection because the cited prior art fails to teach or suggest all the limitations of the claimed invention. In particular, the cited prior art fails to suggest the independent Claim 1 limitation that "the composition comprises at least 65% water with respect to the total weight of the composition".

To establish a *prima facie* case of obviousness, the prior art references when combined must teach or suggest all the claim limitations. MPEP §2143.

The present invention relates to a solid composition which is preferably provided in the form of a water-in-oil (W/O) emulsion and comprising a large amount of aqueous phase, at least one wax and a silicone emulsifier, and the uses of the composition, in particular in the cosmetics and/or dermatological fields. Specification at page 1, lines 6-9. The inventors have discovered a solid composition of the water-in-oil emulsion type which makes it possible to achieve a stable water-in-oil emulsion that comprises a large amount of water and that gives a strong impression of freshness although having an oily continuous phase. Specification at page 2, lines 4-10. The composition has a solid or else "grainy" appearance, that is to say that it has a novel granular appearance which gives variety to the range of textures having a fresh effect. Specification at page 9, lines 28-30.

During the personal interview of August 8, 2001, the Examiner asserted that the independent Claim 1 limitation "the aqueous phase is dispersed in the oily phase" should be rewritten as "the oily phase is dispersed in the aqueous phase" because the recited composition contains more than 50% water. See, e.g., Examiner Interview Summary Record dated August 8, 2001. Applicants respectfully traverse this assertion. As discussed above, the recited composition is a water-in-oil emulsion. The term "emulsion" is defined as "a stable mixture of two or more immiscible liquids held in suspension by small percentages of substances called emulsifiers. Hawley's Condensed Chemical Dictionary, Twelfth Edition, page 461, copy attached. All emulsions consist of a continuous phase and a disperse phase: in an oil-in-water (o/w) emulsion, such as milk, water is the continuous phase and butterfat (oil) is the disperse phase; in a water-in-oil (w/o) emulsion, such as butter, free fat (from crushed fat globules) is the continuous phase and unbroken fat globules plus water droplets

are the disperse phase. Id. However, there is no requirement that a water-in-oil emulsion contain more oil than water. Instead, a water-in-oil emulsion is defined by the dispersion of the aqueous phase in the oily phase. Because the emulsion of the present invention features an aqueous phase dispersed in an oily phase, the emulsion is a water-in-oil emulsion. Applicants submit that the limitation "the aqueous phase is dispersed in the oily phase" correctly describes the water-in-oil emulsion of the present invention.

In contrast to the claimed invention, Boothroyd discloses a sun screening composition which comprises a water-in-oil emulsion which comprises a) 0.5 to 30% by weight of titanium oxide, b) 5 to 20% of an oil phase, c) 1 to 15% by weight of an emulsifier, and d) at least 40% by weight of an aqueous phase. Boothroyd at abstract, lines 1-6. The compositions disclosed in the Boothroyd examples are each a cream, a light cream/lotion, a lotion, or a heavy cream. The Boothroyd compositions can include humectants such as glycerine. Boothroyd at column 2, lines 49-50. Glycerine is soluble in water. Hawley's Condensed Chemical Dictionary, Twelfth Edition, page 566-567. The maximum amount of water disclosed in one of the Boothroyd examples is found in Example 2, which discloses 64% water.

However, Boothroyd is silent about the amount of water in Boothroyd's aqueous phase, which can include, e.g., glycerine in addition to water. Thus, although Boothroyd discloses at least 40% by weight of an aqueous phase, Boothroyd fails to suggest more than 64% of water in Boothroyd's sun screening composition. Thus, Boothroyd fails to suggest the independent Claim 1 limitation that "the composition comprises at least 65% water with respect to the total weight of the composition".

Furthermore, Boothroyd's Example 2, with 64% water, lacks the recited silicone emulsifier.

Moreover, Boothroyd's disclosure of creams, light cream/lotions, lotions, and heavy creams fails to suggest the recited "solid composition", which, as featured in Claim 21, can be in the form of a "cast cream".

Tachibana fails to remedy the deficiencies of Boothroyd. Tachibana discloses a water-in-oil type cosmetic composition comprising a paste-like silicone composition as an oil phase component and at least one water phase component. Tachibana at column 3, line 55 to column 4, line 17. Tachibana discloses in Examples 2-14 that 50 parts by weight of the paste-like silicone composition was mixed with 50 parts by weight of water. However, Tachibana fails to suggest the independent Claim 1 limitation that "the composition comprises at least 65% water with respect to the total weight of the composition". Thus, Tachibana fails to remedy the deficiencies of Boothroyd.

Schulz discloses a silicone elastomer can be swollen with low molecular weight siloxane fluid to provide a uniform silicone paste, which can be easily emulsified with water to form a stable uniform emulsion without using a surfactant. Schulz at abstract. Schulz discloses that the weight ratio of water to the silicone paste can be 95:5 to 5:95. Schulz at column 2, lines 39-40. However, Schulz is silent about water-in-oil emulsions that include an emulsifier. Schulz fails to suggest that Boothroyd's water-in-oil emulsion, which includes 1 to 15% by weight of an emulsifier, could or should include more than 64% water.

Because the cited prior art fails to suggest all the limitations of independent Claim 1, the rejection of Claims 1-21 under 35 U.S.C. §103(a) should be withdrawn. Applicants respectfully request reconsideration and withdrawal of the rejection.

New Claim 22 is further patentably distinguishable over the cited prior art. Claim 22 includes as a limitation that "the composition comprises at least 70% water with respect to the

total weight of the composition". As discussed above, the cited prior art fails to suggest even 65% water. Thus, new Claim 22 is further patentably distinguishable over the cited prior art.

Pursuant to MPEP §821.04, after independent product Claim 1 is allowed, Applicants respectfully request examination and allowance of new method Claim 23, which includes all the limitations of product Claim 1.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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Attachment:

Marked-up copy of amendments

Hawley's Condensed Chemical Dictionary, Twelfth Edition, page 461, 566-567



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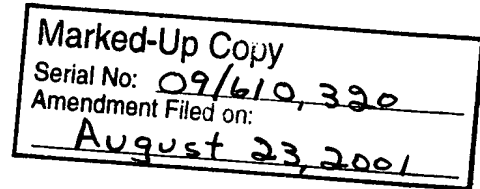
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MARKED-UP COPY OF AMENDMENTS

IN RE APPLICATION OF: :
ISABELLE AFRIAT ET AL. : GROUP ART UNIT: 1615
SERIAL NO: 09/610,320 :
FILED: JULY 5, 2000 : EXAMINER: BENNETT
FOR: SOLID COMPOSITION AND ITS
USES, IN PARTICULAR ITS
COSMETIC USES



AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

In response to the Office Action dated May 25, 2001, please amend the application identified above as follows (marked-up copy of amendments attached):

IN THE CLAIMS

Please cancel Claim 2 without prejudice to or disclaimer of the subject matter therein.

Please amend Claims 1 and 21 as follows:

1. (Amended) A solid composition comprising
an aqueous phase, and
an oily phase, which includes
a silicone emulsifier and
a wax, wherein
the aqueous phase is dispersed in [an] the oily phase[,];
the aqueous phase is present in at least 70% by weight with respect to the total weight
of the composition[, and];
the wax is present in at least 3% by weight with respect to the total weight of the
composition;
the solid composition exhibits a compressive strength of greater than or equal to 50
grams, at room temperature, after penetration by a cylindrical probe having a diameter of 0.8
cm into the composition over a thickness of 5 mm at a rate of 1 mm/s; and
the composition comprises at least 65% water with respect to the total weight of the
composition.

21. (Amended) A method for treating greasy skin, comprising applying the
composition of Claim 1 to greasy skin, wherein said composition is in the form of a cast
cream.

Please add new Claims 22-24 as follows:

--22. (New) The composition according to Claim 1, wherein the composition
comprises at least 70% water with respect to the total weight of the composition.

23. (New) A method of making a composition, the method comprising
dispersing an aqueous phase in an oily phase; and
forming the composition of Claim 1.

24. (New) A method of using a composition, the method comprising
preparing a cream from the solid composition of Claim 1; and
applying the cream to skin.--

from beryllium aluminum silicate containing a small amount of chromium.

Use: Lasers, masers, semiconductors.

emery. See corundum, abrasive.

emetine. (cephaeline methyl ether; 6',7',10,11-tetramethoxyemetan). CAS: 483-18-1.

$C_{29}H_{40}O_4N_2$. An alkaloid from ipecac.

Properties: White powder, mp 74C, very bitter taste, darkens on exposure to light, soluble in alcohol and ether, slightly soluble in water.

Derivation: By extraction from root of *Cephalis ipecacuanha* (ipecac) or synthetically.

Hazard: Toxic by ingestion.

Use: Medicine (antiamebic).

emission spectroscopy. Study of the composition of substances and identification of elements by observation of the wavelengths of radiation they emit as they return to a normal state after excitation by an external energy source. When atoms or molecules are excited by energy input from an arc, spark, or flame, they respond in a characteristic manner; their identity and composition are signaled by the wavelengths of incident light they emit. The spectra of elements are in the form of lines of distinctive color, such as the yellow sodium D line of sodium; those of molecules are groups of lines called bands. The number of lines present in an emission spectrum depends on the number and position of the outermost electrons and the degree of excitation of the atoms. The first application of emission spectra was identification of sodium in the solar spectrum (1814).

See also spectroscopy.

emmenagogue. A drug used to induce menstruation.

Emmert reaction. Formation of 2-pyridyldialkylcarbinols by condensation of ketones with pyridine or its homologs in the presence of aluminum or magnesium amalgam.

emodin. (frangula emodin; frangulic acid; 1,3,8-trihydroxy-6-methylantraquinone).

CAS: 518-82-1. $C_{14}H_8O_5(OH)_3CH_3$.

Occurrence: Either free, or combined with a sugar in a glucoside, in rhubarb, cascara sagrada, and other plants. A synthetic product is also available.

Properties: Orange crystals, mp 256C, soluble in alcohol, insoluble in water.

Use: Medicine (cathartic).

empirical formula. See formula, chemical.

EMTS. Abbreviation for ethylmercury-p-toluene sulfonanilide.

emulsifier. A surface-active agent. See emulsion.

emulsifying oil. See soluble oil.

"Emulsilac-S" [Humko]. (sodium stearyl lactylate). TM for emulsifier, dough conditioner-strengthener, and whipping agent.

Use: For baked goods, puddings, dips, cheese substitutes, sauces, whipped toppings, and fillings.

emulsion. (synaptase; amygdalase; β -glucosidase). An enzyme catalyzing the production of glucose from β -glucosides.

Properties: White powder, odorless and tasteless, capable of hydrolyzing glucosides such as amygdalin to glucose and the other component substances. Soluble in water, insoluble in ether and alcohol.

Source: Sweet almonds.

Derivation: By extracting an emulsion of almonds with ether filtering the clear solution and precipitating the emulsion with alcohol.

emulsion. A stable mixture of two or more immiscible liquids held in suspension by small percentages of substances called emulsifiers. These are of two types: (1) Proteins or carbohydrate polymers which act by coating the surfaces of the dispersed fat or oil particles, thus preventing them from coalescing; these are sometimes called protective colloids. (2) Long-chain alcohols and fatty acids, which are able to reduce the surface tension at the interface of the suspended particles because of the solubility properties of their molecules. Soaps behave in this manner; they exert cleaning action by emulsifying the oily components of soils. All such substances, both natural and synthetic, are known collectively as detergents.

Polymerization reactions are often carried out in emulsion form; a wide variety of food and industrial products are emulsions of one kind or another, e.g., floor and glass waxes, drugs, paints, shortenings, textile and leather dressings, etc.

All emulsions consist of a continuous phase and a disperse phase: in an oil-in-water (o/w) emulsion, such as milk, water is the continuous phase and butterfat (oil) the disperse phase; in a water-in-oil (w/o) emulsion, such as butter, free fat (from crushed fat globules) is the continuous phase and unbroken fat globules plus water droplets are the disperse phase.

See also colloid, protective; phase (2); detergent; surface-active agent; wetting agent.

emulsion breaker. See demulsification.

emulsion paint. See paint, emulsion.

GLUTATHIONE

566

alcohol; insoluble in ether and carbon disulfide.
Combustible.

Use: Chemical intermediate.

glutathione. (γ -glutamylcysteinylglycine).

CAS: 70-18-8. $C_{10}H_{17}O_6N_3S$. A universal component of the living cell. Contains glutamic acid, cysteine, and glycine. These are chemically bound but can be separated by hydrolysis.

Properties: White, crystalline powder; odorless; mp 190-192C; mild, sour taste; soluble in water and dilute alcohol.

Use: Nutritional and metabolic research.

gluten. A mixture of many proteins in which gliadin, glutenin, globulin, and albumin predominate; it occurs in highest percentage in wheat (Manitoba wheat contains approximately 12%) and also to some extent in other cereal grains, usually associated with starch. It comprises 18 amino acids. Gluten is insoluble in water and is hydrophilic. Its specific adaptability to bread making is due to its elastic, cohesive nature that enables it to retain the bubbles of carbon dioxide evolved by leavening agents; this also imparts to doughs their characteristic dilatant properties. This behavior is due to disulfide cross-links and hydrogen bonding between the proteins or their constituent amino acids.

Use: Special breakfast foods and other cereals and foods, cattle food, adhesives, production of certain amino acids.

glutenin. One of the proteins present in wheat flour in substantial percentage. It is composed of 18 amino acids.

glutethimide. See 2-ethyl-2-phenylglutarimide.

Gly. Abbreviation for glycine.

glycarbylamide. (4,5-imidazoledeicarboxamide).

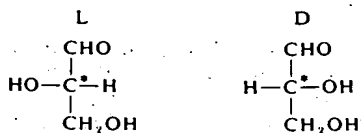
CAS: 83-39-6. $C_3H_2N_2(CONH_2)_2$.

Properties: White powder, melting above 360C, insoluble in water.

A coccidiostat for chickens.

glyceraldehyde. (glyceric aldehyde).

CAS: 367-47-5. $HOCH_2CH_2OCHO$. Isomer ic with dihydroxyacetone. It is produced by the oxidation of sugars in the body. As the simplest aldose, the conformation of D- and L-glyceraldehydes has been designated the reference standard for D- and L-carbohydrates and derivatives.



In these isomers, the central carbon atom (C*) is asymmetric.

Properties: (DL-glyceraldehyde) Tasteless crystals from alcohol-ether mixture, mp 145C, insoluble in benzene, petroleum ether, pentane.

Grade: 40% aqueous solution.

Use: Biochemical research, intermediate, nutrition, preparation of polyesters, adhesives; cellulose modifier, leather tanning.

glyceride. An ester of glycerol and fatty acids in which one or more of the hydroxyl groups of the glycerol have been replaced by acid radicals. The latter may be identical or different so that the glyceride may contain up to three different acid groups. Glycerides can be made synthetically. The most common are based on fatty acids which occur naturally in oils and fats.

See also mono-, di-, and triglyceride.

glycerin. See glycerol.

glycerin carbonate. (hydroxymethylethylene carbonate).

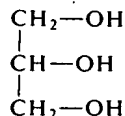


Properties: Pale yellow, odorless, hygroscopic liquid; boiling range 125-130C (0.1-0.2 mm Hg); fp supercools to a glass; d 1.4000 (20/4C); refr index 1.4580 (20C); flash p 415F (212C); miscible with water, alcohol, ether; soluble in ethylene dichloride; insoluble in carbon tetrachloride, benzene, and aliphatic hydrocarbons. Combustible.

Grade: Technical.

Use: Solvent, intermediate.

glycerol. (glycerin; glycyol alcohol; 1,2,3-propanetriol). CAS: 56-81-5.



A trihydric (polyhydric) alcohol.

Properties: Clear, colorless, odorless, syrupy liquid; sweet taste; hygroscopic; d anhydrous 1.2653; USP > 1.249 (25/25C); dynamite 1.2620; mp 18C; bp 290C; soluble in water and alcohol (aqueous solutions are neutral); insoluble in ether, benzene, and chloroform and in fixed and volatile oils; flash p 320F (160C); autoign temperature 739F (392C). Combustible.

Derivation: (1) By-product of soap manufacture; (2) from propylene and chlorine to form allyl chloride which is converted to the dichlorohydrin with hypochlorous acid; this is then saponified to glycerol with caustic solution; (3)

isomerization of propylene oxide to allyl alcohol, which is reacted with peracetic acid; the resulting glycidol is hydrolyzed to glycerol; (4) hydrogenation of carbohydrates with nickel catalyst; (5) from acrolein and hydrogen peroxide.

Method of purification: Redistillation, ion-exchange techniques.

Grade: USP, CP (pharmaceutical and commercial, where highest grade is required), saponification soap lye, crude yellow distilled (for commercial purposes where color and extreme purity are not factors), high gravity or dynamite (dehydrated to 99.8–99.9% purity), natural, synthetic, FCC.

Hazard: TLV: (mist) 10 mg/m³.

Use: Alkyd resins, dynamite, ester gums, pharmaceuticals, perfumery, plasticizer for regenerated cellulose, cosmetics, foodstuffs, conditioning tobacco, liquors, solvent, printer's ink rolls, polyurethane polyols, emulsifying agent, rubber stamp and copying inks, binder for cements and mixes, special soaps, lubricant and softener, bacteriostat, penetrant, hydraulic fluid, humectant, fermentation nutrients, antifreeze mixtures.

glycerol boriborate.

Properties: Pale yellow liquid obtained by heating glycerol, sodium borate, and boric acid, composition varies, soluble in cold water, absolute alcohol, other alcohols, glycerol.

Use: Adhesive, binder, fabric softener, fire retardant on fabrics.

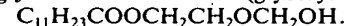
glycerol dichlorohydrin. See α -dichlorohydrin.

glycerol-1,3-distearate. (glyceryl-1,3-distearate).



Properties: Solid, mp 29.1, very slightly soluble in cold alcohol and ether, soluble in hot organic solvents.

glycerol monolaurate. (glyceryl monolaurate).



Properties: Cream-colored paste; faint odor; dispersible in water; soluble in methanol and ethanol, toluene, naphtha, mineral oil, cottonseed oil, ethyl acetate; mp 23–27°C; d 0.98; FFA < 2.5%; iodine value 5–8; pH 8.0–8.6 (25°C) (5% aqueous dispersion). Combustible.

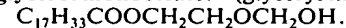
See monoglyceride.

Grade: Edible, technical.

Use: Emulsifying and dispersing agent for food products, oils, waxes, and solvents; antifoaming agent; dry-cleaning soap base.

glycerol monooleate. See "Aldo MO" [Ashland].

glycerol monooleate. (glyceryl monooleate).



Properties: Yellow oil or soft solid, d 0.95, mp 14–19°C depending on purity, iodine value 65–80, insoluble in water, somewhat soluble in alcohol and most organic solvents. Combustible.

See monoglyceride.

Grade: Edible, technical.

Use: Foods, pharmaceuticals and cosmetics; rust-preventive oils, textile finishing; vinyl light stabilizers, odorless base paints, flavoring.

glycerol monoricinoleate. (glyceryl monoricinoleate).



Properties: Yellow liquid, d 1.10, mp < –5°C, iodine value 65–70, dispersible in water, soluble in most organic solvents. Combustible.

See monoglyceride.

Use: Non-drying emulsifying agent, solvent, plasticizer, in polishes, in cosmetics, in textile, paper, and leather processing; low-temperature lubricant. Stabilizes latex paints against breakdown due to repeated freeze-thaws.

glycerol monostearate. (GMS; glyceryl monostearate; monostearin).



Properties: Pure white or cream-colored, wax-like solid with faint odor and fatty agreeable taste. Affected by light, mp 58–59°C (capillary tube), d 0.97, FFA < 5%, iodine value 3–4, dispersible in hot water, soluble (hot) in alcohol, oils, and hydrocarbons. Combustible.

See monoglyceride.

Grade: Edible, cosmetic, NF.

Use: Thickening and emulsifying agent for margarine, shortenings, and other food products; flavoring; emulsifying agent for oils, waxes, and solvents; protective coating for hygroscopic powders; cosmetics; pharmaceuticals; opacifier; detackifier; resin lubricant.

See "Dur-em" [Durkee]; "Atnul" [Humko].

glycerol phthalate. See glyceryl phthalate.

glycerol tributurate. See glyceryl tributurate.

glycerol tripropionate. See glyceryl tripropionate.

glycerol tristearate. See stearin; "Neustrene 064" [Humko].

glycerophosphoric acid. $C_3H_5(OH)_2H_2PO_4$.

Properties: Colorless, odorless, liquid; soluble in water and alcohol; d 1.60; fp –25°C. Combustible.

Derivation: Interaction of glycerol and phosphoric acid.

Use: Manufacture of glycerophosphates.

glyceryl abietate. An ester gum.

Use: Additive in citrus-flavored beverages.

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